

the use of the trephine, where there was reason to believe all the bone that was depressed, or in any way interfered with the functions of the brain, had been removed. The patient's health had always been good previous to the accident, and although the convulsions did recur at other intervals, yet intemperate drinking never failed to bring on a paroxysm of severity.

Philadelphia, September, 1839.

ARTICLE III. Report of Cases Treated in the Baltimore Alms-House Hospital. By SAMUEL ANNAN, M. D., Senior Physician to the Institution.

CASE I.—Epilepsy—Contraction of the Extremities of the right side. E. D., ætat. 21, admitted August, 1834, is marked on the overseer's book, "a cripple, and subject to fits." Has a permanent contraction of the flexor muscles of the right arm and leg. The arm is bent at a right angle at the elbow joint, and the fore arm is carried in front of the body. The hand is also very much flexed on the fore arm. The thigh is flexed on the pelvis, and the leg on the thigh, and the foot is turned inwards. In walking the points of the toes touch the ground. Her friends state that this distortion has existed from birth.

Her mind is but little developed. She is simple and inoffensive; but her temper is irritable, and she is easily made angry. For the most part she is quiet and taciturn; answers questions rationally; but on becoming excited, talks rapidly and incoherently, and is soon seized with an epileptic convolution. The epileptic fit, uniformly follows, and suspends these paroxysms of passion. She had become greatly debilitated and emaciated, when she was attacked with slight symptoms of dysentery, succeeded by diarrhoea, which, in a short time, carried her off.

Exterior.—Emaciation great; limbs straight. **Post mortem** examination twenty-four hours after death. **Brain.**—The os frontis on the left side was found to be one inch thick at its base, becoming thinner towards the coronal suture, where it was nearly normal. The orbital plate of the same was about half an inch thick. The lower part of the parietal bone, the squamous portion of the temporal bone, also the petrous portion, and the base of the skull in front of this latter part were much thicker than natural. The bones of the right side of the skull were normal. On turning off the dura mater, the arachnoid membrane lining it, was seen to be coated with a layer of false membrane, fully one line in thickness, opposite the upper and lateral parts of the anterior and middle lobes of both hemispheres of the cerebrum; which, when stripped off, the arachnoid membrane was observed to be of its natural bluish white colour. On the left side this false membrane was thicker and more completely organised than on the right.

side. It was of a dark red colour, from its vessels being filled with blood; but the surface of it, which looked towards the brain, appeared to be lymph not long effused, inasmuch as when scraped off, it was yellow and did not contain blood vessels. It became thinner as it approached the base of the cranium, and could not be traced over the petrous portions of the temporal bones, nor over the orbital plates of the frontal bones. The two surfaces of the arachnoid membrane adhere firmly on both sides of the superior longitudinal sinus, and glandulae pachioni were numerous. This membrane was removed entire from the upper and lateral parts of both hemispheres, and on the left side had contracted such a firm adhesion to the cineritious matter, at one or two points, that portions of the convolutions, in a softened state, came away with it. It was opaque, and greatly thickened, and indurated, especially on the left side, and at the part which covered the central margin of the left hemisphere. At the latter place, it was nearly as thick and as strong as the dura mater. On the base of the cerebrum, and likewise on the cerebellum, it was normal. There was some serum effused into the sac of the arachnoid, and also beneath the pia mater. The left hemisphere of the cerebrum was very much diminished in bulk. The surface of the convolutions was of a pale white colour; and these bodies were extremely small and shallow. The medullary centre was greatly reduced in thickness, and was very pale; but the corpus striatum, and thalamus of this side, were about as large as those of the opposite hemisphere; as were also the natis and testis when compared with those alongside of them. The cineritious matter of the right side was perhaps rather paler than natural; but the medullary centre, when cut into, showed a number of turgid vessels and bleeding points. The septum lucidum and fornix were slightly softened. Consistence of other parts normal. The right hemisphere weighed seventeen ounces and six drachms; the left ten ounces and one drachm.

Thorax.—The upper part of the superior lobe of both lungs was tuberculated, and a cavity of considerable size was found in the top of the right lung.

Abdomen.—A few small spots of the pyloric half of the stomach had their mucous coat red and softened, while the greater part of the membrane of this half was thickened and mammillated, and of fully the natural strength. Several small ulcers were found in the ilium; and one patch of Peyer's glands, about three inches long, was denuded of its mucous membrane. There was a long ulcer on the ilio-colic valve, and a number of ulcers, some of them large, were seen in different parts of the colon. They extended no deeper than through the mucous coat. In the kidneys, numerous large red vessels were seen running towards the pelvis of each organ, from the surface of the cortical part.

Remarks.—Atrophy of the brain, varying in extent, from that wherein the hemispheres are entirely wanting, to that wherein some convolutions,

or parts of them, only, are absent, has been frequently seen. In many cases the place of the absent cortical and medullary matter has been supplied by serum, and in this way the general outline of the brain has been preserved. In this case, the atrophy was owing to an extraordinary thickening and projection inwards, of certain parts of the cranium. It was the left side only which was atrophied. According to Meckel, the cerebrum generally weighs three pounds, or thirty-six ounces, apothecaries' weight. The right hemisphere, it has been seen, weighed seventeen ounces and six drachms, which would make the whole of the cerebrum, the opposite hemisphere being of the same size, thirty-five and one half ounces.

In the first book of the *Clinique Médicale*, in which M. Andral treats of the diseases of the encephalic membranes, he says that in one case in which permanent flexion of the limbs was observed, he found considerable redness of the pia mater extended over the convexity of the left hemisphere of the brain, with injection of the gray substance of the convolutions of this side. He also quotes the case of a young girl mentioned by Parent and Martinet, who, during the five days previous to her death, presented permanent flexion of the two arms, and on examination, there was found general inflammation of the arachnoid of the convexity; the meninges at the base were thickened, and a small quantity of pus infiltrated them towards the cerebellum; and the ventricles were filled by a turbid serum. In another case, M. Andral observed a strong contraction of the flexor muscles of the forearm, and on dissection, there was found effusion of blood between the arachnoid and dura mater with thickening and redness of the former membrane.

In his second book, which treats of diseases of the brain, Andral narrates the following cases of contraction of limbs. 1. Strong flexion of the fingers of the left hand on the palm, and of the forearm on the arm. The substance of the two cerebral hemispheres very much dotted with numerous red points. 2. The fingers of the left hand flexed so as to touch the palm; the forearm also strongly flexed on the arm. Softening of the surfaces of several of the convolutions, and of the substance, on a level with the centrum ovale of Vieussens, of the right hemisphere. 3. Flexion of the left hand and forearm. Softening of the right hemisphere a little below the convolutions, at the junction of the anterior and middle lobes. 4. Flexion of the right hand and forearm. The left optic thalamus and corpus striatum changed into a yellowish soft substance. The nervous substances around them also softened. 5. Alternation of flexion, and simple paralysis of the left hand, forearm, and three or four turns of the leg on the thigh. The posterior and middle lobes, for two-thirds of their extent, changed into a yellowish bouillie. 6. Flexion of both upper and lower extremities of the left side. The entire anterior lobe of the right hemisphere, the corpus striatum and anterior portion of the optic thalamus, changed into a grayish bouillie. 7. Right forearm and fingers flexed. Left arm cataleptic. Thickening and slight opacity of the membranes covering the anterior and middle parts of the cerebral hemis-

pheres. In the left hemisphere, the posterior and middle part of the optic thalamus, presented a portion the size of a hazel-nut, converted into a yellowish bouillie. In the right hemisphere, there was a softening of small extent towards the posterior internal part of the optic thalamus. In the centre of the softening a small quantity of blood infiltrated the nervous pulp. 8. Flexion of right hand and forearm, and also of the right leg on the thigh. Softening anterior to the left corpus striatum, and likewise of the fornix and septum lucidum. Ventricles greatly distended with serum. 9. Flexion of the left upper and lower extremities. Immense softening in the right hemisphere, commencing at the convolutions of the posterior and middle lobes, and extending near to the base of the brain. The optic thalamus and corpus striatum both reduced to a bouillie.

Dr. Adair Crawford in his part of the article "Inflammation of the Brain," in the London Cyclopaedia of Practical Medicine, says, that while there is a great resemblance between the symptoms of general cerebritis, and those of arachnitis, he regards a more strongly marked and permanent degree of rigidity in the muscles of one side of the body, as more particularly indicative of cerebritis. The spasmotic rigidity generally shows itself first in the arm, in which it is always greatest, and then extends to the inferior extremity. The rigidity and retraction of the muscles which is sometimes observed in connection with meningitis, he thinks, may be distinguished from what he calls spasmotic paralysis, arising from cerebritis, with softening of the brain, by the following signs, viz; there is no actual paralysis; and when the convulsive retraction intermits, the patient fully recovers the power of voluntary motion in the same manner as after the paroxysms of spasmotic rigidity in tetanus. This convulsive rigidity is scarcely ever limited to one region or to one side of the body, as in partial cerebritis, but affects a variety of parts at the same time on both sides. Another ground of distinction, he thinks is, that the sensibility remains unimpaired. In spasmotic paralysis, the rigidity and loss of voluntary motion are permanent, and the sensibility of the affected parts is more or less obtuse. Admitting it to be true, that spasmotic paralysis is a very common symptom of chronic meningitis, he believes it is equally certain, that if the brain be carefully examined, chronic inflammation of the membranes will almost always be found combined with inflammation, and softening of the surface of the brain.

Dr. Crawford farther informs us, that spasmotic paralysis, with pain and other signs of irritation, is generally characteristic of the *first stage* of cerebritis, or that of excitement; but that when the inflammation advances towards the *second stage*, or that of softening or suppuration, the rigidity or muscular contraction gradually lessens, until at last there is complete paralysis. An important difference exists, therefore, between the spasmotic and the complete paralysis: the first being the effect merely of the compression and irritation of the cerebral substance occasioned by the great influx of blood in the first stage of inflammation, is capable of being removed, if we can only

succeed in subduing the inflammatory action at an early period; the second, arising from the softening and complete disorganisation of a portion of the cerebral substance is beyond the hope of recovery.

In opposition to some of the above statements, M. Andral informs us, that permanent flexion of the forearm on the arm is often observed in meningitis; and I have quoted one of his cases of permanent flexion of the arm, in which no other lesion of the nervous centres was seen, except a bright red injection of their substance. It has also been proved, by the cases quoted from Andral, that permanent flexion or spasmodic paralysis, is often connected with, and no doubt dependent upon, softening of the brain. This is the state, in which, Dr. Crawford says, spasmodic rigidity, or permanent flexion disappears, and complete paralysis ensues. Andral, on the other hand says, that it has been laid down much too generally, that softening of the brain produces, in the greater number of cases, a flexion of the limbs. Observation has satisfied him, that this flexion may be as often absent as it is present; but it is very true, he farther informs us, that when it does occur, it becomes an excellent sign to distinguish a softening of the brain from every other affection of this organ. He immediately, however, cautions us not to regard it as pathognomonic; inasmuch as it has been seen in other cases where there was no softening. This caution was certainly required, after telling us that permanent flexion of the forearm on the arm, is often seen in meningitis, and narrating a case in which no change but a bright red injection of the cerebral substance was observed.

The true state of the case would appear to be, that while permanent contraction of various muscles is most frequently found to be connected with cerebritis and softening of the brain, it may be produced by lesions of other parts of the encephalon, as well as by a different form of lesion of the same part. In the case which I have narrated, it was owing to congenital atrophy of one of the hemispheres of the cerebrum. A large number of cases, of a similar description, has been published in the *Archives Générales de Médecine*, tom ix, by M. M. Breschet and Cruveilhier.

I may add, that M. Lallemand differs from both Andral and Crawford, and is of opinion, that convulsion and also rigidity of the limbs, is a symptom of inflammation of the coverings of the nervous centre.

Epilepsy is caused by such a variety of morbid conditions of the encephalon, that we cannot be surprised at its existence in the foregoing case. It would, however, be interesting to know, whether the mental emotion, which invariably brought on the epileptic fit, was confined to the hemisphere fully developed. There were arachnitis and cerebral congestion of the right side, to account for it, and these lesions are sufficient to have produced the imbecility of the mind. Was the atrophied left hemisphere incapable of carrying on its share of the mental functions? Is this a case where the phrenological doctrine of double organs may, with propriety, be introduced? It will have been observed that she was not a complete idiot. She answered

rationally when spoken to; and the question is, what would have been the effect upon the mind, if the right hemisphere had been as much atrophied as the left. The phrenologists have not yet graduated the scale of mental weakness, which corresponds with every degree of deficiency in the cerebral development. They prefer treating of generality; and we cannot, therefore, obtain any assistance from them in the present difficulty.

It will not be uninteresting to notice, in this connection, the unstable ground occupied by our phrenological brethren.

The brain, consisting of two hemispheres, the phrenologists regard all the organs as double, and in this view explain the cases of unimpaired mind where one side of the brain is diseased or injured. Mr. Combe tells us, "it will be evident, that before we can expect complete loss of any one faculty, the entire organ of *both* sides must be destroyed; a fact which has been altogether overlooked by the objectors. For it will be seen, upon an attentive examination of the cases quoted, that not a *single instance is recorded in which the destruction of both organs has occurred, while the alleged manifestation existed.*" The triumphant italics are Mr. Combe's. It is on this principle of the duplicity of the organs, that they have uniformly replied, and as they think, unanswerably, to the cases quoted in the 48th No. of the Edinburgh Review, to Dr. Gordon's facts and arguments in the 49th No., and to the cases recorded in the Manchester Memoirs.

Without adverting at present to the cases which disprove the assertion, that the organs of both sides are never diseased, while the alleged manifestation existed, I would merely express my surprise at observing in the August number of the Select Medical Library, the editor of which ranks second only to Dr. Caldwell as a zealous and able advocate of the claims of phrenology, a case quoted from no less an authority than the Edinburgh Phrenological Journal, of impairment of verbal memory; and on examination after death, there were two small cysts found, lodged in a depression in the organ of language of the left side, which seemed to extend from this point of the brain to the ventricle. "The right hemisphere did not exhibit any thing extraordinary."

What are we to say to this? The same individuals who will not suffer us to bring forward a single example of disease or injury of one side of the brain, where the corresponding faculties are not impaired, as evidence against their system, no sooner meet with a case which appears to corroborate their views, although of precisely a similar character, than they seize upon it with avidity, and sing their song of triumph. From their own accounts, there was no disease of the organ of language of the right side; and if the organs are double, and act independently, although in harmony, when in health, how did it happen, that the uninjured organ of the right side did not perform its appropriate mental functions?

But let us examine this case a little further. How did it happen that not

one of the other organs located in the anterior lobe of the cerebrum was affected? "The autopsic examination showed that there was an alteration of the cerebral substance of the left hemisphere, in addition to the two cysts lodged in a depression of the part which rests on the middle of the orbital plate. The ambiguity of the phraseology will be readily perceived. Did the alteration of the cerebral substance extend over the whole of the left hemisphere, or was it confined to the anterior lobe, where the cysts were found? Let us take the language in its most restricted sense; and then I would ask, an explanation of the fact, that of the sixteen or seventeen organs situated in the front of the skull, but one was observed to have its faculty in the slightest degree disturbed. I take it for granted we shall have the usual reply, "the organs of the opposite side sustained the functions." Admitting this, will you then inform us why the same thing did not occur in relation to the organ of language?

CASE II. *Hemiplegia—Insanity.*—R. S. a black woman, age not known, but certainly very old, was admitted, March 30th, 1838. Was extremely feeble, but could walk with a little assistance. Died June 12th, 1839. For several months before her death, she was confined to her bed with hemiplegia of the left side. The palsy was not complete, but she could use the arm and leg in a slight degree. During the two or three weeks immediately preceding her death, there was moderate flexion and rigidity of all the limbs. Her mind was a good deal impaired. She was very noisy, especially at night, and was continually calling the names of two or three persons, supposed to be her daughters. Still when spoken to, her answers were rational; and she never manifested any of the turbulence of acute mania.

Post mortem examination.—Brain alone examined. The arachnoid membrane lining the dura mater, where it lies over the upper and lateral parts of the middle and posterior lobes of both hemispheres, was coated with a false membrane of moderate thickness, which was easily peeled off from the subjacent tissue. The natural colour of this false membrane was brown; but nearly its whole extent was reddened by the extravasation of blood into its substance, forming an ecchymosis. The vessels were no doubt ruptured by the violence employed in breaking the skull with the hammer. In taking out the brain, firm bands of adhesion were separated, by which the anterior parts of the middle lobes of the cerebrum, and also their base, were attached to the arachnoid of the dura mater. The arachnoid where it passed off from the cerebellum to the medulla oblongata was opaque and thickened. The veins of the surface were unusually turgid. The arachnoid covering the hemispheres of the cerebrum was normal. A small quantity of serum was found in the arachnoid sac.

There was softening of the septum lucidum and fornix, and also of the corpora striata and thalamus. The right thalamus was covered with a thick layer of brown matter, of a soft consistence. About the middle of its sur-

face, however, there was a more solid portion, somewhat roundish, the centre almost black, and one side of it, of a bright yellow colour. A portion of the softened surface of the thalamus, posteriorly, was removed with the velum interpositum, when it was raised, leaving a superficial excavation. On removing the softened brown surface, and cutting into the thalamus, its whole substance was seen to be of a light brown colour, and much darker than the one of the opposite side. The superficial veins of the lateral ventricles were very turgid with blood; and the same was observed through the medullary substance generally.

Remarks.—The primary disease in this case was undoubtedly the arachnitis. By it the mental functions were disturbed. It is remarkable that the layer covering the cerebral hemispheres, should have been so little affected. The inflammation secondarily extended to the substance of the brain, and attacked principally the thalamus of the right side. Having reached a certain point, hemiplegia of the left side of the body made its appearance; and finally softening having taken place, flexion and rigidity of the limbs ensued. This case may be regarded as supporting the theory of Serres and Foville. The corpora striata and thalamus were both softened; and the lower as well as the upper extremity was paralysed. It also, if the series of morbid action was such as I have supposed, sustains the views of Andral, viz., that flexion and rigidity of the limbs are caused by softening of the cerebral substance.

CASE III. *Idiocy from a blow on the head.*—E. R. ætat. 25 years, admitted May 16th, died August 1st, 1839. This girl was a prostitute, and on Christmas, 1836, was struck on the right parietal bone with a stick, by one of her paramours, by which she was knocked down, and rendered insensible. She remained in a state of stupor during several hours. For some days she was unable to leave her bed, and she never afterwards had perfect command of her limbs; neither was she able to articulate distinctly, and her intellect was so much impaired, that she was regarded as idiotic. When admitted into the Almshouse, she could walk a few steps with a tottering gait, but was liable to fall forwards, unless she could catch hold of something wherewith to support herself. On attempting to grasp any thing, the motions of the hands and arms were irregular; showing that the muscles were not completely under the command of the will. The motions somewhat resembled those of a person affected with chorea. She appeared to be completely idiotic, and was as easily managed as a child. When she attempted to speak, although with a little attention, a number of words could be distinguished, no coherent sentence could be made out. She was frequently seized with what appeared to be a chill. She became paler; the extremities cold; and she whined and wept, and was restless and uneasy for two or three hours. No marked hot stage, however succeeded. During several weeks before her death, the muscles about the mouth were

in a state of constant motion, except when she was asleep. She was attacked with dysentery, which was succeeded by diarrhoea, of which she died.

Post mortem examination twelve hours after death. *Exterior.*—Emaciation not great. Brain alone examined. Neither the scalp nor the skull showed any trace of a blow having been inflicted. The arachnoid membrane and pia mater, over the entire surface of both hemispheres of the cerebrum, especially on the upper and lateral parts of the anterior and middle lobes, adhered so firmly to the convolutions, that it was with considerable difficulty they could be stripped off. Over the posterior lobes and base of the cerebrum, the adhesion was not so strong. From the anterior and middle lobes, the cineritious matter, in a softened state, came off, adhering to the membranes. The arachnoid was considerably thickened, and was opaque. The thickening and opacity were greatest over the superior parts of the middle lobes. The medullary centre of the cerebrum showed a greater number of red points than is natural, and the superficial veins of the ventricles were distended. Three or four ounces of serum were found in the sac of the arachnoid, and in the ventricles; and there was a small quantity under the pia mater.

Remarks.—This case would appear to countenance the theory of Foville and Pinel Grandchamp, viz: that the cortical substance is the seat of intelligence. The blow upon the head brought on inflammation of the arachnoid, pia mater and cortical substance. Extensive adhesions were formed between the membranes and the surface of the convolutions; and softening of the cortical matter took place. There was extensive disorganisation of the surface of the cerebrum; while the medullary matter was comparatively uninjured. The mind was a complete wreck; but motion, until she became greatly debilitated, was not very much impaired.

CASE IV. Insanity—Diarrhoea.—M. E., *aet. 50*, admitted May 25th, died September 15th, 1839. This woman was a great talker; but all she said was exceedingly incoherent. She was, however, quiet and inoffensive, and gave us no trouble. I could not ascertain the duration of the mental aberration. She was attacked with diarrhoea, lost her appetite, and gradually wasted away.

Post mortem examination twelve hours after death. *Brain.*—The glandulae pacchioni were numerous along the central margins of both hemispheres of the cerebrum. There were thickening and opacity of the arachnoid membrane on the upper and lateral parts of both hemispheres, and also where this membrane passes from the cerebellum to the medulla oblongata. Its colour was a dirty white. There was a considerable quantity of serum in the sac of the arachnoid, and also in the ventricles. On the base of the cerebrum, and between the hemispheres, above the corpus callosum, the

arachnoid was little if at all changed in structure. When tearing off the arachnoid and pia mater, from the left hemisphere, it was found to adhere firmly to the surface of the convolutions, opposite to the parietal protuberance; and a portion of the cineritious matter, in a softened state, came away with the membranes. At this part, and for some distance around, and also in a few other places of this side, the cineritious matter was either of a deep red colour, or speckled and spotted with red points; and at all these places, it was softened to the consistence of a pulp. There was little or no redness and softening of the cineritious matter of the right side; but the arachnoid was as much thickened, and about as opaque, as that of the left hemisphere. The medullary matter was firm; but, when sliced, showed a great many red points of large size. This was especially the case, opposite the parietal protuberances of both sides, and through the whole of the medullary substance. These red points were rather less numerous on the right side. The large veins of the surface of the cerebrum, as well as those of the lateral ventricles, were turgid with blood. Cerebellum normal.

Thorax.—Nothing particular.

Abdomen.—The inner surface of the stomach was covered with red patches of various sizes; the spaces between which, in the pyloric extremity, were of a light bluish colour. The red spots were softened. The lower part of the ilium and the upper half of the colon were red and softened. The lower half of the colon, and likewise the rectum, had their mucous and muscular coats greatly thickened and indurated; and numerous ulcers of various dimensions, some of them an inch in diameter, were seen penetrating through the thickened mucous coat. All the spots not ulcerated were red and hardened. The liver was of a grayish yellow colour, both on the surface and through its substance. The kidneys were hardened, especially the left one.

Remarks.—Here is another case of mental disturbance, where the principal lesion is found to be in the membranes and cortical substance of the cerebrum. The degree of redness of portions of the cortical substance, was much greater than I have usually seen. Softening unaccompanied by much discoloration is more common. It would seem to be more probable, that the disorganisation of the surfaces caused the mental derangement, than that it was produced by the venous congestion of the medullary substance. There is nothing in these cases to support the phrenological hypothesis. The faculties associated with the parts of the brain most diseased, did not exhibit a corresponding amount of disturbance.

Hypertrophy of the coats of the colon and rectum, especially of the mucous and muscular coats, is frequently met with in our post mortem examinations. In some cases it is accompanied by obstinate constipation; the mucous surface, and also the muscular coat, being indurated and thickened so as to resemble cartilage; and deprived, in a great measure, of their

sensibility. In this state, the most drastic cathartics make little impression. In other cases, where the thickening and hardening are less, and this process appears to be still going on, there is obstinate diarrhoea. There is frequently more or less of ulceration; but, in the worst cases, the ulcers are perfectly indolent.

CASE V. *Hemiplegia—Syphilis.*—D. W., ætat. 28, admitted September 21st, 1838. This woman came into the syphilitic ward in a most deplorable state of nakedness and disease. She had palsy of the left side; was unable to turn herself in bed, and could not articulate so as to be understood. Her mouth was drawn to the right side, and she was unable to protrude her tongue. There were erysipelas of the thighs and hips, and ulcers of the genitals. Her faeces and urine were passed in bed. Her previous history was not obtained. She recovered so far as to be able to walk with difficulty, her left leg being dragged along slowly and painfully. The motion of the left arm was very imperfect; and when she protruded her tongue, it was pushed over to the left side, by the action of the genio-hyoglossus muscle of the right side. She did not entirely recover the power of speaking, but muttered and mumbled; and it was with great difficulty, and only by those accustomed to listen to her, that she could be understood. Four or five weeks before her death, she was attacked with dysentery, fever and general prostration; gradually declined, and died August 13th, 1839.

Post mortem examination twelve hours after death. *Brain.*—Three or four ounces of serum were found in the sac of the arachnoid; and this membrane was slightly thickened, and somewhat opaque. On cutting through the centre of the medullary matter of the cerebrum, the middle and anterior lobes of the right hemisphere were found to be perfectly white and solid, resembling very much the white of a hard boiled egg; but as white as it was possible for them to be. Not a single red point was visible. The posterior lobe showed a considerable number of red points; as did also the anterior and posterior lobes of the left hemisphere. The middle lobe of this latter hemisphere was as white as that of the opposite side. *Cerebellum* normal. When the arachnoid and pia mater were torn off from the tuber annulare, a small opening was observed to the right of the mesial line, from which a thin, light straw-coloured pus exuded. On dividing the tuber longitudinally through this opening, a cavity was seen, of the shape of a pear, the large end being forwards, adjacent to the anterior surface. This cavity was three quarters of an inch long, and half an inch wide. It was lined with a membrane, and its surface was irregular. No part of it lay to the left of the mesial line.

Thorax.—Nothing remarkable.

Abdomen.—The stomach, towards the pyloric extremity, was of a grayish colour. Some spots were red. There was no softening. The colon

and rectum were somewhat reddened, and the mucous coat softened at the red parts. The liver was of a yellowish colour, both externally and internally.

Remarks.—According to the account of her acquaintances, the subject of the above case had been a prostitute and a drunkard. At what time, or under what circumstances, the palsy supervened, I could not discover. Dr. Todd, of Kings College, London, is disposed to agree with Serres and Foville, in the opinion, that in the generality of cases of hemiplegia, the optic thalami and corpora striata, or some portion of the cerebral hemispheres will present a morbid alteration of structure; which may vary in extent as well as in degree. Andral, from a comparison of seventy-five cases, in which the lesion was circumscribed with sufficient exactness to qualify them for solving this question, has been led to the conclusion, that in the present state of science, we cannot yet assign in the brain, a distinct seat to the motions of the upper and lower extremities. No doubt, he adds, that such distinct seat exists, since each of these extremities may be paralysed separately, but we do not yet know it.

In the above case, the palsy was unquestionably dependent upon the lesion of the tuber annulare. The consolidation and anæmia of the middle and posterior lobes of the right hemisphere, cannot be supposed to have had any agency in the production of the hemiplegia, from the fact that a similar condition of the middle lobe of the left hemisphere, had not affected the motory power of the right extremities. Neither was any alteration of structure observed in the corpora striata and optic thalami. We are thus restricted to the one palpable injury. But this case is not solitary. Andral narrates a case virtually the same. A woman had been paralysed during four years, on the right side. On examination after death from another cause, the only lesion found was a cavity in the middle of the crus cerebri of the left side, capable of containing a cherry, and filled with a greenish serum.

An interesting question is, was the woman whose case I have narrated, attacked with apoplexy at the time the extravasation of blood took place into the tuber annulare? In the case just quoted from Andral, the woman went to bed in her usual health, and on awaking in the morning, found her right side paralytic. Here there was no loss of consciousness. In many other cases, however, where the hemorrhage has had its seat outside of the hemispheres, in the cerebellum, for example, and in the tuber annulare, apoplexy has been observed. Dr. Fabre has recorded the case of an old man, who died of an attack of apoplexy, accompanied with complete loss of consciousness, in whom the nervous centre presented no other lesion than an effusion of blood into the substance of the left corpus pyramidale. The extent of the effusion of blood, would appear to have more influence upon the intelligence, at the time of the apoplectic seizure, than its seat. We

cannot, however, suppose that all the blood which could be effused into one of the corpora pyramidalia, could cause sufficient pressure upon the encephalon to destroy consciousness. It is more than probable, that associated with the extravasation, there was some other morbid condition which was overlooked. In the case of my patient, I imagine there may or may not have been apoplexy, according to the condition of the encephalon at the time. At what time the hardening and anaemic condition of three of the cerebral lobes made its appearance, it is impossible to say. Whether it preceded or succeeded the effusion of blood, cannot be ascertained. Neither can we discover the remote cause. Alcohol hardens the dead brain; but its stimulating properties are more likely to produce congestion, inflammation, and softening of the living organ.

An impairment of the faculty of speech, similar to what was observed in the above case, but sometimes greater, is a frequent occurrence after an effusion of blood into the brain. M. Bouillaud has published a number of cases, from which he thinks he may conclude, that the anterior extremity of each hemisphere, constitutes the organ of speech; this part having been found the seat of lesion in all the instances where speech had been lost during life. Sixteen cases are mentioned by Andral, in which the morbid change resided in one of the anterior lobes, or in both, and speech was retained. On the other hand, he has collected fourteen cases where the speech was abolished, without any alteration in the anterior lobes. M. Lallemand has given a case in which the faculty of speech was completely lost, and no other alteration was found than a softening of the white substance of the left lobe of the cerebellum. In M. Ollivier's work on the spinal cord, there is a case where loss of speech occurred, at first partial, and then complete. The tuber annulare was found softened at its lower surface to an extent equal, at least, to the size of a filbert. This case is very analogous to the one I have given above.

CASE VI. Epilepsy—Insanity.—E. A. *ætat.* 59 years, admitted March 13th, 1839, blind.—Her vision had been destroyed by inflammation. It was soon discovered that she was subject to fits. They were brought on by the smallest degree of motion—even by moving her on her bed—and not a day passed that she had not several. During these fits the limbs became rigid, and the left arm and leg were slightly convulsed. Each fit lasted from five to ten minutes. The convulsion was not violent; and there was not any foaming at the mouth. On the disappearance of the fit, she appeared to be very much debilitated. The left arm and leg lay motionless, but she soon recovered command of the muscles. Her mind was greatly impaired. She talked incoherently and incessantly, but was not violent in her manner. Could not ascertain how long she had been in this state.

She was attacked with dysentery; refused to take medicine; and died June 21st, 1839.

Post mortem examination.—The veins of the outer surface of the dura mater were distended with blood; and numerous large glandulæ pacchioni were seen along the course of the superior longitudinal sinus. The arachnoid lining the dura mater was of a pink colour, opposite to the parietal bones. There were about three ounces of serum in the arachnoid sac. The membranes covering the hemispheres were not thickened, and there was scarcely a perceptible opalescence. The colour of the cineritious matter was rather darker than natural. Vascular turgescence was very manifest throughout the whole of the medullary substance. Numerous large red points, and long red vessels, were visible at all places, on cutting and scraping the medullary tissue. The superficial veins of the lateral ventricles were extremely large and filled with blood. The discoloration of the arachnoid lining the dura mater; and also this turgescence of the vessels of the cerebrum, were greater on the left than on the right side. There was considerable vascular congestion throughout the cerebellum. A tumour was found lying on the left crus cerebelli, close to the tuber annulare, of the size of a large shellbark, viz., three-fourths of an inch long, and half an inch broad. It was covered with a serous membrane, and by it was attached to the arachnoid and pia mater of the cerebellum. It was solid, and on being laid open, its colour was seen to be red and yellowish white intermixed. Two spots were harder than the rest, and felt like cartilage. *Thorax*.—Two or three, small, bluish, and thin flakes of false membrane were found attached to the serous membrane covering the heart. There was extensive and old adhesion of the right lung to the ribs.

Abdomen.—An inch of the œsophagus at its termination in the stomach, was of a very dark red colour; two or three spots being of a dark purple, almost a blue colour. Along the lower margin of this red portion, the follicles were greatly enlarged. The mucous membrane of the stomach was of a brownish yellow and bluish gray colour, with spots of ecchymosis and softening. The colon and rectum were extensively ulcerated, reddened and softened. The ulcers were of various sizes; and were especially numerous along the longitudinal bands.

Remarks.—The morbid alterations presented by this case are opposed to the cortical theory of intelligence. The cineritious matter exhibited fewer signs of disease, than the medullary. The meningitis which had existed, had not affected the membranes in contact with the convolutions. The vascular turgescence of the dura mater, and of the medullary substance, was sufficient to account for the epilepsy; but we have not at present, the data to enable us to decide whether the same cause produced the insanity. It is true that vascular injection of the medullary substance, has been frequently observed in the brains of insane persons; the red points being sometimes large, and at others small, according to the size of the vessels congested; and the latter giving rise to a mottled appearance of a deep red or violet colour. We, however, see these changes in so many cases, where no mental aber-

ration exists, that we cannot but hesitate in ascribing insanity to them alone. But there can be no danger in asserting that this disturbance of the equilibrium of the circulation of the brain, forms a part of the morbid condition which develops insanity. Inflammation of the arachnoid covering the hemisphere, with or without adhesion to the cortical substance, has been the most frequent and evident morbid alteration, in my post-mortem examinations of the insane. How far the cortical substance may be deranged in function, in the cases where there is no perceptible change of structure, in consequence of its connection with the arachnoid covering it, it is impossible to say. It does not, however, require any great stretch of imagination, when we look at the intimate union by means of blood-vessels, which exists between the cortical substance and the membranes covering it, to cause us to believe, that neither can be the seat of inflammation, without the function of the other being materially disturbed. But on the other hand, we frequently meet with the ravages of chronic arachnitis, where no symptom of mental derangement had been present; as for example, in cases of epilepsy; so that at last we are obliged to acknowledge, that there are mysteries still inscrutable, connected with the pathology of the brain and its membranes.

CASE VII. Dilatation of the Heart.—J. E., a Negro, *aet. 56*, habits temperate, previous health good. Admitted March 29th, died June 28th, 1839. On the 1st of May, 1838, as he was going to his work, early in the morning, he was suddenly attacked with violent palpitation of the heart, accompanied by vertigo, which caused him to fall down in the street. He was not deprived of consciousness, but was unable to rise for some time. His left arm was paralysed. He was bled and purged, by which he was entirely relieved in a short time. He continued to enjoy good health until last Christmas; at which time the palpitation of the heart returned; and along with it, dyspnoea and a troublesome, dry cough made their appearance. He attributes his last attack to exposure to cold. On applying the stethoscope, the motions of the heart were discovered to be exceedingly irregular. Several pulsations could be heard and felt, say three or four, varying in the loudness of the sound, and in the degree of impulse given; and these were followed by a great bound or heave, sufficient to elevate the head of the auscultator. There was a constant repetition of this series of movements. A bellows murmur, corresponding with the second sound of the heart, was heard indistinctly, when he was admitted. It became daily more audible, as the symptoms became worse, and the disease advanced towards its fatal termination. There was more extensive dulness, on percussion, of the precordial region, than is usual. The diagnosis was, enlargement of the heart, with thickening and induration of the mitral valve.

Post mortem examination. Thorax.—The heart was double the natural size; but was enlarged chiefly by dilatation of all the cavities. The walls of the ventricles were but little hypertrophied. The septum ventriculosum

was more hypertrophied than any other part. The anterior portion of the mitral valve was thickened and indurated, especially at the centre of the free margin. The posterior portion was also similarly affected, but in a less degree. The auriculo-ventricular openings were enlarged. The interior surface of the ascending aorta was of a bright yellow colour, and rough. The serous coat was slightly, the muscular coat considerably, thickened. Nothing remarkable seen in the other organs.

Remarks.—There are three varieties of dilatation of the heart, viz: 1. *Simple dilatation*, in which the cavity is enlarged, and the walls are of their natural thickness. 2. *Dilatation with thickening*, in which the cavity is enlarged, and the walls are thickened. 3. *Dilatation with attenuation*, in which the cavity is enlarged, and the walls are attenuated. In the case which I have just narrated, the walls were so little thickened, that it perhaps might, with propriety, be ranked in the first class, and called a case of simple dilatation. Dr. Hope informs us, that dilatation occasionally affects only a single ventricle, and it is generally the right; but much more commonly it attacks both. The auricles being protected by their valves from the direct influence of the numerous causes of pressure which operate on the ventricles, are far more exempt than they, both from dilatation and hypertrophy. But when the auricular valves are diseased, whether their state be that of contraction, which impedes the transmission of the auricular blood, or of permanent patescence, which allows a regurgitation of the ventricular, the auricles suffering unnatural distension, become dilated. The mechanical effect of over-distension being the cause of dilatation, we can easily see, in the above case, how the obstruction offered to the passage of the blood, from the left auricle to the left ventricle, by the diseased condition of the mitral valve, would dilate the left auricle, the right ventricle, and the right auricle; but it is not so easy to discover the cause of the dilatation of the left ventricle. It may be regarded as doubtful, whether the roughness of the inner surface of the aorta, combined with the diminished elasticity, or capacity of expansion, produced by the thickening of the two inner coats, would offer so great an obstacle to the passage of the blood out of the ventricle, as would suffice to dilate the cavity. No other obstruction is discernible; and although, as a general rule, it is better to remain in ignorance, than to adopt and be satisfied with an insufficient explanation of a phenomenon, still, if we are not blind to the unsatisfactory nature of our solution of the problem, we will not be precluded from a continuance of our researches.

In dilatation with hypertrophy, Dr. Hope says, the sounds are increased. This was the case in the present instance. He also tells us that the ventricular contraction is sometimes accompanied with a bellows murmur. This he has found to be almost always the case when the heart is extremely large, and contracts with vehemence. The heart in this case was very large; but, probably, the hypertrophy was not great enough to produce the bellows murmur corresponding with the first sound, or ventricular contraction. The

only bellows murmur heard, accompanied the second sound, or ventricular dilatation.

The same author informs us, that sometimes while several beats of the heart are *heard*, one only is *felt*; and if this be vigorous, it warrants a conclusion that the parietes are little attenuated. Laennec, he adds, does not make this observation, but he has assured himself of its accuracy by numerous post mortem examinations. To a certain extent, this distinction between hearing the sounds, and feeling the impulse, would apply in the foregoing case. The small beats of the heart were heard more clearly than they were felt, while the large one was felt more plainly than it was heard. Dr. Hope associates these peculiarities with a small amount of attenuation; whereas, in this example, there not only was no attenuation, but there was some hypertrophy. Symptoms arising from vital action are so much diversified by idiosyncrasies of temperament, and the structure of the organism, that it is extremely difficult, if not altogether impossible, to discriminate small differences of morbid condition, where they approximate so closely, as in the instances of a little hypertrophy, or a little attenuation of a dilated heart.

It seems now fully established, that all the adventitious sounds of the heart are caused by certain abnormal motions or currents produced in the column of blood, whereby this, which usually glides on smoothly and silently, is thrown into sonorous vibration. Where the mitral valve is thickened and indurated, it does not play freely, and, therefore, does not open sufficiently during the ventricular dilatation, to allow the blood to pass from the auricle to the ventricle with its accustomed facility. The consequence is an unnatural motion, and a sound to correspond. The occurrence of several feeble pulsations of the heart, followed by a strong one, can be accounted for in the same manner. The blood not having a ready exit from the auricle, the ventricle for two or three beats has but a small quantity to expel, and therefore contracts with no great force. But during this time an accumulation has taken place in the auricle, which becoming greatly distended, contracts forcibly to relieve itself, distends the ventricle to its utmost limit, and stimulates it to contract violently for the purpose of emptying itself. The same causes continuing to operate, we have a recurrence of the same movements. It is not impossible but that the force with which the auricle contracts, when enormously distended under these circumstances, may assist in bringing on the unnatural dilatation of the ventricle; and it is not entirely beyond belief, that this force alone would produce it.

CASE VIII. *Syphilis—Phthisis—Dysentery—Dropsy of the Fallopian Tubes.*—C. M. ætat. 21, admitted June 8th, 1839. This girl by her own admission, became a prostitute at twelve years of age; and was so much injured by her first copulation, that violent inflammation ensued, with great tumefaction of the labia. The labia externa have not regained their natural dimensions. They are about twice the ordinary size, and of scirrhouss hardness. When

admitted, she was weak and emaciated, and had a large ulcer on the inner side of the left nymphæ. She was subjected to a slight mercurial course, under which the sore was healing, when she was attacked with dysentery, which soon became an intractable diarrhoea, under which she sank on the 12th of August.

Post mortem examination 12 hours after death. *Thorax.*—The upper lobes of both lungs contained tubercles, in some of which the process of softening had commenced. *Abdomen.*—The colour of the mucous coat of the stomach was an intermixture of gray and red. The red parts were somewhat softened. The mucous coat of two-thirds of the colon, beginning at the rectum, was thickened and indurated. The muscular coat slightly hypertrophied. The inner surface of this part of the colon was extremely rough and hard. The mucous coat of the rectum was red and thickened. The liver was of a bright yellow colour, through its whole structure. The Fallopian tubes of both sides were enlarged, and contained a fluid. The tube of the left side, at its largest part, was more than an inch in diameter. The fimbriated extremity was united by a firm adhesion to the end of the ovary. The dilatation was continued to the point of union. The tube of the right side was something smaller, and its extremity floated loose; but the fimbriæ had entirely disappeared, and in their place there was a termination in a *cul de sac*. Both tubes gradually decreased in size as they approached the uterus, and at the place of juncture to it, the appearance was natural.

Remarks.—Dropsy of the Fallopian tubes, the hygroma, of some writers, is not unfrequently met with; and in numerous instances the tumour has acquired an enormous size. When a hygromatous tumour is formed in these tubes, the fimbriæ are for the most part destroyed, and the abdominal openings obliterated. The tube of both sides is generally affected in the same manner, being both distended into complete bags, of a variety of shapes, and always largest at the loose extremity. There are mostly traces of previous inflammation, such as thickened portions, false membranes, and adhesion to parts in the vicinity. De Haen relates a case in which the Fallopian tube weighed seven pounds, and the cavity contained twenty-three pounds of fluid. Frank gives a case, in which a pint of fluid escaped daily from the vagina, till the patient died of consumption. After death, thirty-one pounds of a watery and gelatinous fluid were found in the left Fallopian tube. We cannot, during life, distinguish this form of dropsy from that of the ovary. This is of little importance, inasmuch as all internal remedies are known to be equally unavailing in both diseases. De Haen states that death has followed the operation of tapping for the Fallopian dropsy, and that the viscosity of the fluid making its escape impossible, will render the operation unsuccessful.

CASE VIII. *Phthisis Pulmonalis.*—R. W. ætat. 28, admitted May 29th, died July 18th, 1839. Habits intemperate. The symptoms of phthisis

No. XLIX.—NOVEMBER, 1839.

were well marked when she came into the hospital. The physical signs were equally clear. There was bronchial respiration and bronchophony at the top of the left lung, and pectoriloquy under the clavicle on the right side. The disease pursued its usual course. Diarrhoea came on about two weeks before her death, and could not be checked.

Post mortem examination twelve hours after death. *Exterior.*—Emaciation great. *Thorax.*—The upper lobe of the left lung, and parts of the superior half of the lower lobe were filled with tubercles, of various sizes, and some of them were beginning to soften. The right lung was still more extensively tuberculated, and in the upper lobe there was a large cavity. There was extensive and firm adhesion of the right lung to the pleura costalis. The trachea and larynx, particularly the former, were red and rough on the inner surface. There was no ulceration of these latter parts.

Abdomen.—Four small ulcers were found in the pyloric extremity of the stomach. They had raised edges, and the mucous coat around their margins was separated from the muscular coat. This latter was not affected with the ulceration. The colour of the mucous coat at the pyloric extremity was a light blue. The remainder was a pale yellow. A number of ulcers, of various sizes, were found in the duodenum, jejunum, and ilium. They were ragged round the edges, and their surfaces were uneven. The largest were one and an half inch long, by three-quarters wide. Opposite to every ulcer, and underneath the peritoneum, tubercles were seen, the number varying from ten to thirty, according to the size of the ulcer. The smallest were as large as pins' heads; the largest about the bulk of a small pea. The mesenteric glands were considerably enlarged, and were filled with tuberculous matter. The colon was also ulcerated in many places; some large and others small. The ilio-colic valve was extensively ulcerated. The ulceration, in some of the larger ones, had extended through the sub-mucous coat to the muscular coat. There was but little redness around any of the above mentioned ulcers; and the mucous coat, at the intermediate spaces, was generally of the natural colour, except towards the lower part of the colon, and in the rectum, where it was slightly reddened.

Remarks.—I have very seldom met with ulceration of the stomach in my post mortem examinations. Discoloration, with thickening, and softening or hardening, the effects of chronic inflammation, are the most common appearances. Latterly, I have seen but two other cases. They both also died of tuberculous disease. One of the ulcers in one of these examples, there being only two or three present, was situated in the great extremity of the stomach. There was in this case also, about the same extent of ulceration of the jejunum and ilium; and both ovaries were dropsical. The right one was the size of a large orange; the left, of a moderate sized apple.

In the case which I have narrated above, the mesenteric glands were tuberculous. M. Louis, in his work on phthisis, discusses the question, whether these tubercles invariably depend on an inflammatory state of the

corresponding mucous membrane. His statement of facts is contradictory, as given in Cowan and Bowditch's edition. He appears, however, to incline to the opinion, that, as the general rule, inflammation and ulceration of the small intestines is the cause of mesenteric tubercles. There are, however, other cases where he thinks no such dependence exists. Inflammation of the glands themselves, he believes may be one cause; but only in phthisical individuals. He never met mesenteric tubercles except in phthisical cases. These glands are frequently increased in bulk, without being tuberculous.

He tells us in one place, that in every instance, when the mesenteric glands were tuberculous, he has found ulceration of the small intestine; and in another place, on the same page, that the only example of complete tuberculous transformation of *all* the mesenteric glands, which he has seen, was that of a young man, in whom he found the mucous membrane of the small intestine perfectly healthy, as regards colour, consistence, and thickness. This is a palpable contradiction.

The case which I have just given, demonstrates that the irritation proceeding from ulcers of the small intestines, has a powerful agency in the development of tubercles. This is shown by the existence of a large number of tubercles underneath the peritoneal coat, opposite every one of the ulcers of the inner surface of the tube, and at no other corresponding part. Here, then, we plainly see, that the inflammation and ulceration of the mucous coat of the intestines, will cause the formation of tubercles. If the tubercles had been developed antecedent to the appearance of the disease of the mucous coat, it is not probable that there would have been the invariable co-existence of the two at all points. This is made abundantly evident when we consider, that so long as tuberculous matter remains as primarily deposited, whether in the form of gray granulations or crude tubercles, we find the surrounding tissues healthy. The tubercles in this case were still in a crude state, and there was not the smallest appearance of inflammation in the tissues immediately adjacent. If, then, the irritation of an ulcer will produce tubercles underneath the peritoneal coat, *a fortiori*, we might expect them to be developed by the same cause in the mesenteric glands; because the lymphatic vessels, which arise from the ulcerated parts, are concentrated in, and pass through, these glands; and convey a portion of irritating matter, which, we know, does frequently excite inflammation. In a sound constitution, where the tuberculous cachexy does not exist, we will have simple inflammation. In the phthisical constitution, irritation or inflammation of nearly all of the tissues will cause the deposition of tuberculous matter.

The case of the young man mentioned by Louis shows, that, in certain individuals, the tuberculous cachexy is so completely formed, that no irritation whatever is required to cause the deposition of tuberculous matter in the mesenteric glands. Some are born with tubercles already deposited in various parts, particularly in the lungs. In others, the hereditary predisposition is so strong, that they begin to appear early in life. In a third class,

the mode of life fills the blood with the materials of tubercles, which, after a time, are poured out into all the tissues which will receive them. In some places it is retained, and goes through its various transformations. In other places, as upon some of the mucous surfaces, it is soon discharged by the proper outlets.

CASE IX. Constipation—Dysentery.—M. N., ætat. 35, admitted March 28th, 1839. This woman was found drunk in the streets at night, and was brought out by an officer. For about two weeks she had symptoms somewhat resembling delirium tremens. She talked incoherently, and was tremulous. It was very soon, however, suspected that there was some other cause of mental aberration, at least, associated with the tremulous. She next became taciturn, would not speak to, or notice, any person; and the nurse was obliged to shake her, and put food into her hands, in order to get her to eat. She continued in this state until she was attacked with dysentery, about two weeks before her death, which took place on July 13th. During her last illness, she answered questions rationally, and remarked that whiskey had brought her to that condition. From the time of her admission until the commencement of the attack of dysentery, she was habitually constipated, and had no evacuation, unless by the use of the most drastic cathartics. No medicine had much effect in checking the dysentery.

Post mortem examination twelve hours after death. *Brain.*—Meninges, cineritious and medullary substance, free from morbid alteration. *Thorax.*—Lungs and heart sound. *Abdomen.*—The whole inner surface of the stomach, was red from turgescence of the vessels; but there was not any well-marked change of texture of the mucous coat. It was perhaps rather thicker than natural, but was scarcely if at all softened. Portions of the jejunum, and of the upper part of the ilium, were in the same state of redness. The entire extent of the rectum and colon, from the anus to the caput cœcum, was greatly thickened and indurated. All the three coats, the mucous, muscular and peritoneal, were about equally hypertrophied. In some places, the bowel was between a quarter and an half inch thick; in none less than two lines. The texture of all the coats, was that of scirrhus. The mucous coat, on its inner surface, was exceedingly rough, and of a dark red colour. It was as hard as cartilage, and not the smallest appearance of ulceration could be seen. The same thickening and hardening process, had been going on, in the lower part of the ilium. Eight or ten inches of this bowel, above its junction with the cœcum, were in a similar condition; but the coats were not so much thickened, nor quite so greatly indurated. There was but little contraction of the intestine at any of these diseased parts.

Remarks.—Constipation of the bowels arises from a great variety of causes. Scirrhouss degeneration has been frequently found to exist, when there had not been the smallest suspicion of it during life. The caput cœcum and the sigmoid flexure of the colon, and rectum, are said to be generally the seats of the change

of stricture. Thickening and ulceration are the ordinary effects of the morbid action in the cæcum. In the sigmoid flexure, and rectum, the caliber of the tube is not unfrequently diminished, forming permanent stricture. This case is remarkable for the great extent of the bowel affected, and the extreme thickness and hardness of the coats. The sensibility of the mucous and muscular coats, must necessarily be so much diminished in these cases, that it is not at all surprising, that large doses of the most drastic cathartics are required to act on the bowels. When dysentery or diarrhoea once begins, the same cause will prevent medicine from acting so as to arrest the disease.

The morbid conditions of the colon have been mistaken for disease of the liver; an organ which, for a long period was regarded as the source of all abdominal disorders. I have seen a case of chronic colitis, with whitish, glairy, mucous discharges, treated as a case of chronic hepatitis, by the exhibition of mercury, and with the effect of increasing the disease. Modern pathology, however, has corrected all this. Still it is to be feared, that too many are not as familiar with the improvements of our day, as they ought to be.

The mental affection in this case, must obviously be attributed to functional disturbance of the brain. That she had delirium tremens was plain; but it did not readily yield to the remedies I am in the habit of employing, and there was evidently something more than the hallucinations of *mania a potu*. Her incoherence partook more of the character of insanity, than of the other disease; and after she was relieved from the tremors and other symptoms which are the effects of temulence, the taciturn state into which she fell is not the ordinary sequela of delirium tremens. There can, however, be no doubt that all the derangement of the functional action of the brain, both as regards mind and body, was the effect of the inordinate use of ardent spirit.

CASE X. *Scrofula Morbus Coxarius.*—M. R. ætat. 20 years, Negro, admitted August 24th, died September 11th, 1839. This woman was found to have constant fever. She was considerably debilitated, but could not be prevailed upon to lie in bed, until she became so weak as to be unable to sit up any longer, on account of an aggravation of the pain of hip and thigh. On examination, the two upper thirds of the thigh, on the outer side, were observed to be occupied by a large tumour, gradually increasing in size from its lower boundary, where it came to a point, up to the neighbourhood of the hip joint. It was not tender to the touch, but when the thigh was moved, she complained of excruciating pain. She was but little relieved by medicine.

Post mortem examination twenty-four hours after death. The tumour of the thigh was found to consist of a mass of matter very much like dry cheese curd, in friable lumps, and the greater part of it slightly tinged with a red colour. It extended upwards above the hip joint, and was deposited

in a sac, underneath the fascia lata, and the tensor vaginae femoris; and a process of it was traced up to the neighbourhood of the ischiatic notch. The upper portion crumbled when removed by the scalpel. The lower, narrow part was softened, by an admixture of purulent matter. A portion of this same curd-like matter was found in the hip-joint. The head of the femur was entirely denuded of its cartilage, and the bone exposed, rough and of a red colour. The cartilage of the acetabulum was also in a great measure destroyed. The uterus and ovaria were taken out, and a tumour, the size of a walnut, was discovered behind each ovary; which, when opened, poured out a quantity of white, soft matter, of the consistence of thick cream. The interior of the uterus was filled with a white, dry, cheesy matter; on removing which, a thick, white, false membrane, was observed, lining the whole cavity, with the exception of a small portion of the neck, adjacent to the mouth. The lungs were filled from top to bottom, with miliary tubercles. The right lung was generally adherent to the pleura costalis; the left was perfectly free. There was nothing particular in other parts.

Remarks.—The scrofulous diathesis was strongly marked, in this case. It would appear, that in order to have tuberculous matter deposited in any tissue, it was only necessary to have some irritation set up, in sufficient degree. The disease of the hip joint was of the ordinary character, viz., ulceration of the cartilage. According to Mr. Brodie, at whatever period of *morbus coxarius* an examination of the joint is made, the cartilages are found in a state of ulceration; but the morbid affections of the soft parts and bones vary very much, nor are they much altered from their natural state, except in the most advanced stage of the malady. Previous to ulceration commencing, the cartilage undergoes a remarkable change, becoming soft, and assuming a fibrous appearance, which proves that the ulceration is produced by the action of its own vessels, and that it is not acted upon by the vessels of the bone to which it is connected.

The primary irritation in the above case, was doubtless seated in the hip joint. It was thence extended to the parts on the outside of the joint, and produced the tuberculous deposit, which formed the tumour of the thigh. Some irritation of the uterus and ovaria, caused an analogous deposit in them; and it was only necessary that a certain amount of disease of the small intestines, perhaps nothing short of ulceration, should have been present in order to have had tuberculous deposit in the mesenteric glands.

CASE XI. *Anasarca—Ascites—Hydrothorax—Extensive Tuberculous Disease of the Thorax and Abdomen.*—J. N., Negro, *æt. 23*, admitted August 14th, 1839. The symptoms of all the above mentioned forms of dropsy, were well marked. No medicine made the slightest impression on her diseases, and she died September 3d.

Post mortem examination twelve hours after death. *Thorax.*—There was a large quantity of serum in both cavities of the pleuræ. The middle

lobe of the right lung was little else than a mass of tuberculous matter not softened. The lower lobe was filled with rounded tubercles of various sizes. The upper lobe was almost entirely free from tuberculous deposit. The left lung had a considerable number of large and small round tubercles, scattered through its substance generally. The bronchial glands were a mass of tuberculous matter. The heart was covered with a layer of semi-gelatinous, false membrane.

Abdomen.—A large quantity of serum was evacuated. The small intestines and the colon, were united by a thick, false membrane. The former were completely surrounded, and the mesentery was covered by a false membrane, fully one-eighth of an inch thick, which was filled with small round tubercles. The ilium and jejunum were drawn out as from a tube. The false membrane on the colon and uterus, was not so thick as the above. The stomach was free from it. The omentum was slightly thickened, and contained a large number of small tubercles. The right side of the convex surface of the liver was coated thickly with tuberculous matter; and a great many round tubercles were dispersed through its substance. The mucous coat of the colon and ilium were slightly reddened and softened at a few points. There were no tubercles under the mucous coat; but there was tuberculous deposit in the mesenteric glands. The whole inner surface of the stomach was covered with small shallow ulcers, to the amount of nearly one hundred. The mucous coat was red in patches, and softened. The spleen was coated with tuberculous matter; and a great many were found pervading its substance. There was one tubercle on the outside of each kidney, but none in the interior.

Remarks.—We here have a remarkable example of tuberculous peritonitis, and general deposition of tuberculous matter. In no other instance have I seen false membrane any thing like as thick as was found in this case. She was so stupid, and had so much difficulty in talking, from the embarrassment of the respiration, that I could make nothing out of her account of her previous history. She did not complain of pain, and I could not discover whether there had been symptoms of acute peritonitis, at the commencement of her illness. It is most probable there was not, or she would have had a distinct recollection of them. Where the tuberculous diathesis is strongly marked, a very small degree of irritation will cause a deposit to be made in most of the tissues. It is not, therefore, surprising that the chronic peritonitis, which led to the formation of such thick false membrane, should also have produced tubercles. The upper lobe of the right lung, it will have been observed, was much more free from tuberculous deposition than either of the lower lobes. This is contrary to the law which applies almost universally. We have here, too, tuberculous disease of the mesenteric glands, in the absence of ulceration of the small intestines. The irritation communicated from the inflamed peritoneum surrounding them, was sufficient to produce this result.

CASE XII. Insanity—Dysentery.—P. G., ætat. 70, admitted April 10th, 1839. The insanity in this case was complete. She was almost continually talking incoherently, and occasionally was exceedingly obstreperous. Her paroxysms of anger, when any thing displeased her, were extremely violent. She was attacked with dysentery, and soon refused to take medicine; and although the symptoms were mitigated by injections, she gradually declined, and died exhausted by the constant discharges from the bowels, on the 28th of July.

Post mortem examination thirty-six hours after death. *Brain*.—The dura mater adhered with extraordinary tenacity to the cranium; so much so indeed, that it was split and lacerated in separating the skull. Strong and extensive adhesions existed between the two surfaces of the arachnoid membrane, along the central margins, and over the superior surfaces of the hemispheres of the cerebrum. *Glandulæ pacchioni*, of unusually large size, were seen in great numbers at the same places. The arachnoid lining was of a pinkish colour, and on the base of the cranium, on the right side, in front of the petrous portion of the temporal bone, there was a spot half an inch in diameter, the colour of which was a dark purple. The arachnoid covering of the upper surface of the hemispheres was opaque and thickened; and adjacent to the central division, was thickened and consolidated in an extraordinary degree. The vessels of the medullary substance of the cerebrum, and also those of the surfaces of the ventricles were remarkably turgid. On slicing and scraping the brain in various directions, an extraordinary number of red points were visible, and also a great number of large red lines. The medullary substance of the cerebrum was unusually firm and solid; the cortical was normal.

Thorax.—Nothing abnormal except considerable debilitation of the ascending aorta, and slight thickening of its sigmoid valves.

Abdomen.—The inner surface of the stomach, towards the pyloric extremity, was of a bluish, gray colour. The mucous coat of the lower part of the ilium, was red and thickened, and the muciparous glands were very much enlarged. The mucous coat of the colon was thickened and indurated, and its surface was uneven. Portions of it, of various sizes and shapes, in some places forming large patches, were elevated above the other portions of the membrane, and were somewhat reddened. The entire surface was thus rendered rough, and the raised parts, were more indurated than the lower portions. The mucous coat of the rectum was likewise thickened, and was of a dark red colour, inclining to blue. About five inches of the upper part, with a portion of the sigmoid flexure of the colon, were of a dark purple colour almost black, and softened.

Remarks.—In this case, the effects of chronic meningitis are more clearly seen, than in any I have detailed. But there was no adhesion of the arachnoid membrane to the cortical substance; neither was there any softening of the cortical substance; and, nevertheless, the insanity was strongly charac-

terised. The cortical substance then, could only have been functionally disturbed; and admitting it to be the seat of intelligence, it may well be questioned, whether functional derangement alone, would cause such furious mania, as prevailed in the above case. We seldom see so great a degree of congestion of the medullary substance, as was here observed; and in place of being softened, it was consolidated. If we should decide upon the question as to the location of the intellect, from this case, we must fix either upon the medullary substance or the meninges.

CASE XIII. *Dementia—Phthisis—Diarrhœa—Latent Pleurisy.*—P. G., *ætat.* 28 years, admitted March 2d, died June 26th, 1839. This girl was brought to the Alms House by her friends, because they could not prevent her from wandering about the country, and exposing herself to the inclemencies of all seasons. She was gentle and harmless; and her imbecility of mind approached very near to complete idiocy. She had never been otherwise. Diarrhoea made its appearance shortly after her admission; and the ordinary remedies had only the effect of producing a temporary diminution of the quantity of the discharges.

Post mortem examination. *Brain.*—There was slight vascular turgescence of the medullary centres of the hemispheres of the cerebrum. This was the only morbid appearance, with the exception of shallowness of the convolutions of the hemispheres. Their depth was at least one-third less than is usual.

Thorax.—There was extensive adhesion of the left lung to the pleura costalis. There was a pint of serum in the sac of the pleura of this side. Tubercles in large number were found at the top of both lungs; but more abundant in the left lung. The pleura costalis of the left side was covered with unorganised lymph; and where it lined the diaphragm, a thick coating, of hard, dry, friable tuberculous matter was seen, which was easily broken off.

Abdomen.—The mesenteric glands were greatly enlarged, and filled with tuberculous matter. The colon was extensively ulcerated. One very large ulcer occupied the caput cœcum, and had destroyed the muscular coat, in some spots as well as the mucous. Another large ulcer was found in the rectum. There was also an ulcer in the ilium, ten or twelve inches above its termination.

Remarks.—Here we have a case in which the cortical substance would appear to have performed a prominent part. The atrophy was well marked; and as there was no other morbid alteration of any account, we are shut up, to regard this abnormal condition, as the cause of the mental imbecility. It would appear not to have been atrophy from disease, but a congenital want of development.

We occasionally meet with cases where pleurisy remains concealed; and the first intimation we have of its existence, is at the post-mortem examination. It usually occurs where the sensibility has been greatly reduced by

other diseases. This girl made no complaint about any thing. She answered questions, but was generally, correct only in part. I had to depend chiefly on the nurses for an account of her symptoms. The mesenteric glands did not owe their tuberculation in this case, to an irritation derived from ulcers of the small intestines. The single ulcer of the ilium was not likely to have been the cause of the extensive disease of these glands which was observed.

CASE XIV. *Phlebitis.*—The same girl whom I cured of phlebitis last year, and whose case I published in the February Number of this Journal, came into the syphilitic ward again this summer; was attacked severely with dysentery, and was bled four times. The last bleeding was in the arm opposite to the one in which the vein was inflamed before. It was followed by phlebitis. She called my attention to it immediately. The vein was inflamed both above and below the orifice. An emollient poultice was applied to the opening, which was red and tumid; a blister was put on above and below the poultice, and an eighth of a grain of tartar emetic was ordered every two hours. The inflammation extended slowly upwards, until the subclavian and internal jugular veins became painful. It was pursued by the fresh application of a blister every day, until at length, the whole side of the neck was vesicated. On the third day the antimonial solution was discontinued, and five grains of blue mass and one grain of opium, were ordered twice a day, which were omitted as soon as her gums became slightly sore. She had previously been so freely depleted for the dysentery, that there was no necessity for a repetition of blood-letting. Her pulse was very much accelerated; there was considerable anxiety of countenance; and she complained greatly of the pain along the course of the brachial vein; especially when she attempted to straighten the arm. Emollient poultices were applied immediately after the removal of the blisters. I was apprehensive of the result during more than a week; but she has perfectly recovered.

ARTICLE IV.—*Case of Triplets.* By M. DONNELLAN, M. D. of Pointe Coupée, Louisiana.

SATURDAY the 15th, about midnight, I was called, in great haste, to Madam B., a large, robust lady, aged 36, who had already given birth to six children, of whom five are living, and who was then in labour. About half an hour before my arrival, she was delivered of one child, assisted by her mother, quite an old lady, who told me that the child was born feet foremost. The pains were pretty sharp and frequent, though not effective; and at each, unruptured membranes could be felt; but neither